

Appl. No. 09/986,682
Amdt. dated. March 2, 2004

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 - 18 (canceled)

Claim 19 (New): An isolated DNA encoding a polypeptide having beta-fructofuranosidase activity, said polypeptide obtainable by the expression of a *Bacillus* gene, which polypeptide contains the amino acid sequences of SEQ ID NO:1 and SEQ ID NO:2 as an amino acid sequence and which polypeptide has the following physicochemical properties:

a. Molecular weight

About 44,000-55,000 Daltons determined by SDS-PAGE;

b. Optimum pH

About 5.5-6.0 when incubated at 40°C for ten minutes;

c. Optimum temperature

About 45°C in the absence of calcium ion when incubated at pH 6.0 for ten minutes, and about 50°C in the presence of calcium ion when incubated at pH 6.0 for ten minutes;

d. pH Stability

Stable at a pH of about 5.0 to 8.0 when incubated at 4°C for 24 hours; and

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e. Thermal stability

Stable up to a temperature of about 45°C when
incubated at pH 6.0 for one hour.

Claim 20 (New): The isolated DNA according to claim
19 which contains the nucleotide sequence of SEQ ID NO:4,
variants of the nucleotide sequence of SEQ ID NO:4 or a
nucleic acid encoding SEQ ID NO:3, or complements thereof.

Claim 21 (New): The isolated DNA according to claim
19 which contains the nucleotide sequence of SEQ ID NO:5,
variants of the nucleotide sequence of SEQ ID NO:5 or a
nucleic acid encoding the polypeptide encoded by SEQ ID NO:5
or complements thereof.

Claim 22 (New): The isolated DNA according to claim
19 which further contains a self-replicable vector.

Claim 23 (New): A transformed host cell obtainable
by introducing into an appropriate cell a DNA encoding the
isolated DNA according to claim 19.

Claim 24 (New): The transformed host cell according
to claim 23 wherein the host is a microorganism.

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Claim 25 (New): A transformed host cell obtainable by introducing into an appropriate cell a DNA encoding the isolated DNA according to claim 20.

Claim 26 (New): A transformed host cell obtainable by introducing into an appropriate host a DNA encoding the isolated DNA according to claim 21.

Claim 27 (New): A transformed host cell obtainable by introducing into an appropriate host a DNA encoding the isolated DNA according to claim 22.